

Testing Technology. Together.



The Leak Testing Revolution. Easy, Fast and Smart.

LEAK AND FLOW TESTERS.

Testing Technology. Together.



**FORTEST** produces the best leak test equipment to allow customers increasing quality of their production process: this is only possible thanks to fast, reliable and traceable testers, always in accordance with quality selection rules according to several, different production fields.

# The Leak Testing Revolution. Easy, Fast and Smart.

If compared with our competitors, we boast an innovative approach to leak testing since we do our best to create close synergies with customers: our aim is that of providing them a turnkey solution, perfectly tailored to their needs.



**FORTEST** develops and produces leak and flow testers.

Since 2012 our company plant is placed in Modena, by the first ancient factory of Maserati, and works in Italy as well as abroad in many industry fields: automotive, agriculture, foundry, irrigation, mechanics, electronics, medical, household appliances, packaging.

Our highly qualified staff is composed by more or less thirty technicians, employees and partners, able to meet leak test market's expectations about components, equipment and machines.



## Be in partnership.

We do not sell products, we sell solutions built in close cooperation with our customer. Our devices are developed for a large range of applications, in and after process, as to guarantee excellent performances even in the worst conditions. We have a network of representations abroad made of tight cooperations with local companies.

## Be testing technology.

Our innovative leak and flow testing technologies are aimed at obtaining the most stable, precise and repetitive measurement available today on market.

## Be smart.

In order to give our best solutions to your testing problems, we supply IT systems in combination with our testers.

## Be fast.

Testing has never been that fast, thanks to unbelievable pneumatic and measurement performances.

## Be easy.

Thanks to the easy interface of our testers customers can start testing in very small time, no special training is strictly needed. Install, handle, test.

### OUR SERVICES

- Free service account
- Test bench consulting
- Tests on parts
- Pre-sale consulting
- Technical assistance
- Periodical calibrations
- Systems installation
- Support about testing rules observance
- Trainings

# Testing Technology. Together.

## Leak test

This is the most innovative and rich range of equipment for industrial leak testing, obtained by the combination of four different product categories (M6000, M7000, M8000 and M9000 series) and four different kinds of measurement: absolute pressure decay (Mxx9x), differential pressure decay (Mxx6x), compliance interception measurement (Mxx8x) and continuous measurement of leak rates (Mxx7x).

- Mxx9x: Absolute pressure decay: this kind of measurement is based on the principle of «pressure decay». By pressurizing the part under test, the equipment detects a certain pressure drop.
- Mxx6x: Differential pressure decay: this kind of equipment detects the presence of a leak by comparing the part under test with a master part, which is surely airtight.
- Mxx8x: Compliance interception measurement: it allows to measure leak rates outside the part, which was previously put into a sealed bell.
- Mxx7x: Continuous measurement of leak rates: this system is ideal for testing gas/electric household appliances since it enables continuous leak testing, allowing for the analysis or reparation of the part under test (e.g. kitchen gas stoves).

## Entry level leak test equipment



- M6990: Entry level absolute pressure decay leak tester
- M6993: Low cost absolute pressure decay leak tester
- M6960: Entry level remote differential leak tester for small volumes

Applications: Valves | Packaging | Medical | Mechanical | Hydraulics |

## Standard leak test equipment



- M8990: Standard absolute pressure decay leak tester
- M8960: Standard differential pressure decay leak tester
- M8970: Standard continuous leak test equipment
- M8980: Standard compliance-interception leak tester
- M8890: Standard double-channel leak tester

Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Heating | Alternative Energies | Cylinders | Hydraulics | Household Appliances | Electronics |

## High level leak test



- M9960: High level differential pressure decay leak tester
- M9980: High level compliance-interception leak tester

Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Nuclear | Heating | Alternative Energies | Aerospace | Hydraulics | Household Appliances | Electronics | Cylinders | Brake Calipers | Foundry |

## Flow test

Our flow testers as well have taken advantages from the modularity of our new "M" series: thanks to four different kinds of measurement, our flow testers can meet any customer's requirement.

- Mx71x: continuous micro flow: this is particularly suitable for big leak rates measurement and for those tests where leak rate measurement is independent from the part volume (oleo-dynamics, packaging, motors).
- Mx72x: differential micro flow: it is a good alternative to absolute pressure decay leak testing. Especially useful for big volumes testing at low pressure (tanks, canisters, lighting, etc...).
- Mx73x: continuous flow: this FORTEST's classical flow measurement based on our historical measurement of mass flows and on the patents we registered. This range of testers boasts the most innovative systems for loss of charge elimination (openings, filters, etc...).
- Mx74x: RFO continuous flow: Real Flow Output is the exclusive FORTEST system (copied but never equalled) for the automatic and real time adjustment of pressure according to loss of charge. This is the only solution available on market today to make flow tests at ultra stable pressures by variable and big flows (tractor cabins, panels, boxes, windows, chimneys).

## Digital flow calibrators



M2710 (with flow rates up to 0.2 l/min) and M2730 (with flow rates from 1 to 20 l/min) are the new "M series" portable digital calibrators by FORTEST. Enclosed in an anodised aluminium box provided of a shatter-proof Plexiglass front panel, we find brand-new mother board and mass flow sensor for the direct measurement of leakage. Supplied with a micrometre nozzle, it is aimed at simulating the desired leak rate, as to make the tester set up and verification easier.

Applications: Industry | Metrology | Lab |

## Standard flow test equipment



- M8710: Standard flow tester for micro flows
- M8720: Standard differential flow tester
- M8730: Standard continuous flow tester
- M8760: Differential mass leak tester

Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Heating | Alternative Energies | Cylinders | Hydraulics | Household Appliances | Electronics |

## High level flow test equipment



- M9710: High level micro flow tester
- M9720: High level differential flow tester
- M9730: High level continuous flow tester
- M9740: High level RFO continuous flow tester

Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Nuclear | Heating | Alternative Energies | Aerospace | Hydraulics | Household Appliances | Electronics | Cylinders | Brake Calipers | Foundry |

# Testing Technology. Together.

## Equipment configuration

Thanks to our revolutionary modular configuration technology, it will be possible to surf through the richest range of accessories as well as through the largest selection of scales available today on market, in order to create the ideal solution for any testing problem.

SERIES	TYPE	MEASUREMENT	PNEUMATICS	RELEASE	-	Technical features (see configuration table)																														
							<div><b>Type:</b> 0=Calibrated Leak / 2=Portable / 6=Entry level / 7=Micro / 8=Standard / 9=High level</div> <div><b>Measurement:</b> 2=Comparator / 3=Volume measurement / 7=Flow test / 8=Double-channel leak test / 9=Leak test</div> <div><b>Pneumatics:</b> 1=Continuous micro flow / 2=Differential micro flow / 3=Continuous flow / 4=RFO / 6=Differential pressure decay / 7=Continuous leak measurement / 8=Compliance interception measurement / 9=Absolute pressure decay</div> <div><b>Release:</b> 0=Standard / 1=Modification request / 2=Existing modification / 3=Low cost series</div>																													
M	X	X	X	X	-	..	..	..																												
									Code	Maximum Pressure Scale (Bar)	Maximum Flow Scale (l/min)	Power supply voltage	Test Port hose fittings	Micro Pnmaticous	Frontal fitting for calibrated leak	Ultra-Precise mech. regulator	Remote measurement	Electronic Regulator	E.V. autozero pressure	Pressure / under-pressure test	Pre- Filling	E.V. waiting for pressure	Double threshold for bad result	Analogical leak output	I/O Expansion	Bi-Manual	Ethernet	USB on	Wi-Fi connection	Radio remote control	Part volume measurement	Double pressure branch	Triple pressure branch			
LEAK TEST EQUIPMENT		M6990	-1...10	-	2	2...4	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-				
		M6993	-1...10	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
		M6960	-1...10	-	2	2...3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	O	-	-	-	-	-	-	-	-				
		M4990	-1...10	-	2	3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
		M4890	-1...10	-	2	3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
		M4960	-1...10	-	2	3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		M8990	-1...50	-	4...5	2...4	●	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		M8960	-1...10	-	4...5	2...4	●	●	●	●	●	X	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-			
		M8970	0...1	-	4...5	2...4	-	●	●	-	●	●	-	●	-	●	-	●	●	●	-	●	●	●	-	●	●	●	●	●	X	-	-			
		M8980	-1...10	-	4...5	2...4	-	-	●	●	●	●	-	●	X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	X	●	-			
		M8890	-1...10	-	4...5	2...4	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	X	-	●	●	●	●	-	●	●	●			
FLOW TEST EQUIPMENT		M9960	-1...20	-	4...5	2...4	●	●	●	●	●	X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		M9980	-1...200	-	4...5	2...4	-	-	●	●	●	●	●	●	●	●	X	●	●	●	●	●	●	●	●	●	●	●	●	X	●	●	●			
		M8710	0...1	1	4...5	3...4	-	●	●	-	-	●	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-			
		M8720	0...0,5	0,02	4...5	3	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-			
		M8730	0...2	20	4...5	3...5	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-			
		M9710	0...15	1	4...5	3...4	-	●	●	-	-	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-			
		M9720	0...2	0,02	4...5	3	-	●	●	-	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-			
		M9730	0...8	200	4...5	3...6	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-			
		M9740	0...1	100	4...5	4...6	-	-	-	-	X	X	-	-	X	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-			
		M2710	0...0,1	0,2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		M2730	0...1	20	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		M8760	0...10	0,3	4...5	3...5	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-			
		M0710	0...10	0,2	0	3-7...9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	M8260	0...1	-	4...5	4...6	-	-	●	●	●	●	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-			
	M8390	0...1	-	4...5	3...4	-	●	●	-	●	●	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-			

### CAPTION

X: standard  
●: available  
-: not available

### Power supply voltage

0: no power  
1: Rechargeable Lithium Battery  
2: 24 V DC  
4: 110 V AC 50/60 Hz  
5: 230 V AC 50/60 Hz

### Test Port fittings

2: 4 x 2.7 mm pipe  
3: 6 x 4 mm pipe  
4: 8 x 6 mm pipe  
5: 10 x 8 mm pipe  
6: 12 x 10 mm pipe

7: Stubli® male  
8: 1/8" GAS male  
9: 1/4" GAS male



## Micro

M4000 is the new and revolutionary range of micro leak test equipment created for integrators and test benches manufacturers. 3 versions of it are available: single-channel absolute pressure decay leak tester, double-channel absolute decay leak tester and single-channel differential leak tester.

Micro range of leak testers has been designed to test small volumes, up to 100 cc, with ultra-fast test times.

It is provided of DIN bar, but can also be used directly on the test station or installed on a panel.

Scales are available from -1 to 10 bar. Operators can manage these products by 24 Vdc digital signals for PLC, USB port for PC connection. Once first set up has been completed, it works automatically, an external start pulse is only needed.



## Calibrated leak master



M0710 is the new range of certified ForTest leaks for the automatic verification of testing processes. This is a patented device.

Operators need to check if their leak test systems are properly calibrated at any time; M0710 is the ideal instrument to make this verification.

If the equipment detects the calibrated leak, then the tester is properly calibrated.

## Connectivity



M Series Manager is an application able to fully manage the operations of one or more M series tools. It makes possible to setup testers and introduce test parameters by Pc station. It also allows to change test programs and to manage Start and Abort of all testers in its network. This software can display a graph representing real time and on-going tests and allows to save tests results in different formats such as: Access Database (.mdb) Excel database (.xls) and CSV (.csv).

All ForTest devices can be connected to a variety of peripherals: bar code or Data Matrix readers, thermal printers or even Wi-Fi networks thanks to a proper suitable optional accessory. Our open-minded engineering team does not put any boundary to customer's requirements, allowing to get complex systems for data tracking, batches management and test benches integration.



# Testing Technology. Together.

**ForTest Italia s.r.l.**

Comparto Alfieri Maserati, Sez. 2A  
Via Sibilla Aleramo, 7  
41123 Modena (MO) - ITALY  
Phone +39 059 557250  
Fax +39 059 579022  
[www.fortest.it](http://www.fortest.it)

**ForTest ASIA**

80/76 Moo 4 , A.C. HOUSE 4, T.  
Ladsawai A. Lumlookka, Patumtani 12150  
THAILAND  
Tel/Fax: +66 02 569 3534  
[info-asia@fortest.com](mailto:info-asia@fortest.com)

**ForTest Deutschland GmbH**

Vertrieb und technische Beratung  
Dornerweg 16/1 - D-88709 Meersburg  
GERMANY  
T. +49 7532 494442  
F. +49 7532 494248  
[info-deutschland@fortest.de](mailto:info-deutschland@fortest.de)

**ForTest Deutschland GmbH**

Weißenhörnerstr., 16  
89312 Günzburg  
GERMANY

**ForTest FRANCE Sarl**

60, Boulevard Jean Labro  
13016 Marseille  
FRANCE  
Tel./Fax: +33 (0) 491488880  
[info-france@fortest.fr](mailto:info-france@fortest.fr)

**Air Air Control**

15, Rue de la Planché Bains  
59211 Santes  
FRANCE  
Tel. + 33 (0) 3 20 30 66 17  
Port. +33 (0) 6 89 34 84 88  
[c.heughebaert@airaircontrol.com](mailto:c.heughebaert@airaircontrol.com)

**ForTest ESPAÑA**

Avda. Diagonal, 160 - 5º 1ª  
08018 Barcelona  
SPAIN  
Tel.: +34 933560037  
Mobil: +34 634847121  
[info-espana@fortest.es](mailto:info-espana@fortest.es)

**ForTest PORTUGAL EUROPNEUMAQ Lda.**

NES - Núcleo Empresarial de Serzedo  
Lote 2, n. 35 Rua da Senhora Mestra, n. 27/35  
4410-511 SERZEDO (V.N. de Gaia)  
PORTUGAL  
Tel.: +351 227 536 820  
Fax: +351 227 620 335  
[info-portugal@fortest.com](mailto:info-portugal@fortest.com)

**ForTest CHINA MESH AUTOMATION**

Room 101, Building 24, No. 518 XinZhuan Rd.,  
SongJiang District, Shanghai, PRC (201612)  
Phone: +86 (21) 6256-8359  
Fax: +86 (21) 6255-2545  
[china@mesh-automation.com.cn](mailto:china@mesh-automation.com.cn)  
[info-china@fortest.com](mailto:info-china@fortest.com)

**ForTest TAIWAN - COREROCK INC.**

No. 15, Lane 23, RuiAu Street,  
Taipei, TAIWAN 10665  
Phone: +886 (2) 2707-3919  
Fax: +886 (2) 2707-1323  
[taiwan@corerock.com](mailto:taiwan@corerock.com)  
[info-taiwan@fortest.com](mailto:info-taiwan@fortest.com)

**ForTest BRASIL- PIGOZZO Ind. Com. Ltda**

Rua: Alberto Alves, 205 - Bairro: Santa Catarina  
CEP: 95030 - 815 - Caxias do Sul (RS)  
BRASIL  
Fone/Fax: + 55 54 3021 7491  
Cel: + 55 54 8100 8906- 54 9963 3915  
[info@fortest.net.br](mailto:info@fortest.net.br)  
[www.fortest.net.br](http://www.fortest.net.br)

**Vimal Industrial System**

Sr No 36/1/3/3 , Narhe -Ambegaon Road  
Narhe Industrial Area, Nare Gaon  
Tal Haveli  
Pune. 411 041 INDIA  
Phone: - 020 - 65222253 [info-india@fortest.com](mailto:info-india@fortest.com)

**RADIN AFZAR CO.**

Unit 511, floor 5, Goldis Tower,  
sadeighieh square, Tehran -IRAN-  
Telefax: (+98) 21- 22350353  
Mobile: (+98) 9109120198  
S. Abolghasemi  
[radinafzar@gmail.com](mailto:radinafzar@gmail.com)